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US 3327724
US 3599651

(57) Claim

1. An annexe assembly including:- a support assembly attachable to a mounting; a retractable flexible covering within said support assembly whereby it may be selectively extended from or retracted into said support assembly; said covering being supported as a roll when in said retracted attitude and being tapered whereby transverse edge portions thereof do not roll upon themselves in said retracted attitude.

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This document contains the
amendments made under
Section 49 and is correct for
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Gussie Traveller Pty. Ltd.

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(Patent Application Nos. PH 08792, PI 0138 & PI 2406)

COMPLETE SPECIFICATION FOR THE INVENTION ENTITLED:-"AN IMPROVED ANNEXE"

The following statement is a full description of this
invention, including the best method of performing it known
to us:-

This invention relates to improved annexes.

An annexe made in accordance with the present invention can be affixed to a caravan or a four wheel drive or other vehicle to provide additional accommodation or it can be mounted on a permanent structure to provide, for example, a temporary car port or additional living space. For illustrative purposes however, this invention will be described hereinafter with reference to its application to caravans.

Most caravans are fitted with an annexe which can be assembled at a journey's destination to provide additional living space beside the caravan. Generally the annexe is formed from fabric stretched about a metal frame or simply stretched between the caravan and supporting posts remote from the caravan. Frequently however, a metal frame is utilized to support the fabric and which may include roof stretchers adapted to maintain tension in the roof fabric and rails, particularly along the junction between the roof and the outermost wall of the annexe. While such annexes are effective in use, they are difficult to stow and the task of erecting, dismantling and stowing the annexe is time consuming.

The present invention aims to alleviate the abovementioned disadvantages and to provide an annexe which will be reliable and efficient in operation. Other objects and advantages of this invention will hereinafter become



apparent.

With the foregoing and other objects in view, this invention in one aspect resides broadly in an annexe assembly including:- a support assembly attachable to a mounting; a retractable flexible covering within said support assembly whereby it may be selectively extended from or retracted into said support assembly, and an annexe frame pivotally attached to said support assembly whereby it may be selectively moved between a stowed attitude substantially within or adjacent said support assembly and an erected attitude for supporting the extended said flexible covering.

The flexible covering may be a fabric covering and it may be supported on a spool inside a housing in the support assembly whereby it may be rolled from or onto said spool to its operative or stowed positions. The spool may be manually rotatable for retracting the covering or alternatively it may be spring loaded to automatically retract the covering when the latter is released from the supporting frame.

The supporting frame may be universally connected to the housing so that it may be pivoted between a stowed attitude and an operative attitude at which the frame members extend outwardly therefrom and whereby the frame members may be pivotally raised or lowered during the assembly or disassembly process. Suitably, the annexe frame assembly includes roof frame members each having a wall frame member pivotally attached thereto at its outer end whereby the wall



frame members may be pivoted to a position alongside the respective roof frame member for movement to and from the stowed position. The roof and wall frame members may be maintained in their supporting positions by diagonal bracing means connected thereto and spaced from their pivotal connection to one another or by floor frame members which may be pivotally connected to the lower end of the wall frame members and adapted to extend inwardly to engage a lower part of said mounting.

It is also preferred that transverse corner frames be provided for supporting the fabric along the transverse edges of the roof. The transverse corner frames may be pivotally attached to the outer end of a longitudinal roof frame member so that they may be pivoted to a position alongside the roof frame member for movement to and from their stowed position or alternatively they may be detachably connected to respective adjacent roof or wall frame members and carried, when not in use, in a compartment provided within the housing. The latter may be provided with quick connection means whereby it may be releasably connected to the side wall of a caravan or the roof of a vehicle for example. In the latter case, roof rack type gutter connections could be provided for supporting the housing above the roof of the vehicle.

The side portions of the covering fabric may be provided with suitable attachment means for attaching end panels



thereto to form end walls for the annexe. For this purpose, the covering may have zippers along the side portions and it may be so shaped that the zippers do not roll up in on themselves in the housing. The covering may taper inwardly or outwardly from its roller mounting or it may incorporate both inward and outward tapers whereby the bulk of rolled material at the end portions of the roller are maintained within acceptable proportions.

Alternatively, VELCRO (Registered Trade Mark) type fastening material may be used to provide the end wall connections along with side walls. Alternatively, the fabric covering may include end wall extensions connected to the covering along the opposed roof ends such that the end wall panels may be folded on top of the fabric covering for retraction about the supporting spool or dropped to an enclosure position when required. The end walls and/or the side walls may be provided with access openings or windows as required.

In another aspect, this invention resides broadly in an annexe assembly including:- a support assembly attachable to a mounting; a retractable flexible covering within said support assembly whereby it may be selectively extended from or retracted into said support assembly; an annexe frame for supporting the extended said flexible covering, and the latter being supported as a roll of material when in said retracted attitude and being tapered whereby transverse edge



portions thereof do not roll upon themselves in said retracted attitude. Preferably, any window or door openings provided in said covering are also tapered to prevent excessive bundling of the covering in the stowed attitude.

5 The detachable sidewall panels are also preferably provided with suitable tapered openings and tapered transverse edges.

In order that this invention may be more readily understood and put into practical effect, reference will now be made to the accompanying drawings which illustrate a
10 typical embodiment of the present invention and wherein:-

FIG 1 illustrates one form of annexe attached to the side wall of a caravan;

FIG 2 is a diagrammatic perspective view illustrating the housing for the roof covering and the annexe frames and its connections thereto;
15

FIG 3 is a diagrammatic perspective view illustrating the housing for the roof covering and the annexe frames and its connections thereto;

FIG 4 illustrates the mounting arrangement of the roller mounted covering;
20

FIG 5 is a cutaway view of an end portion of the housing showing the roof and wall frames in a partly extended attitude;

FIG 6 illustrates the roof and wall frame members in their erected attitude;
25

FIGS 7a to 7d illustrate the erection sequence of

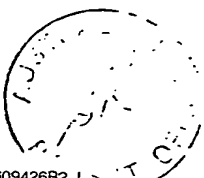


another form of annexe attached to the side wall of a caravan;

Referring initially to FIG 1, it will be seen that the annexe assembly 10 comprises a fabric covering 11 which extends outwardly from its supporting housing 12 to the side wall frames 13 and downwardly across these frames 13 to a ground engaging position. The lower edge of the fabric covering is attached to a rigid bar 14 which may be readily pegged to the ground or secured to the lower ends of the side wall frames 13. The fabric covering thus forms a roof 15 which is supported by the roof frame members 16 and 17 and a side wall 18 supported by the wall frames 13 and a corner rail 19 which extends between the junction of the roof and wall frame members 13 and 16.

The lower ends of the wall frame members 13 may be pivotally attached to a respective floor frame 21 which returns across the floor to connect to a bracket 22 mounted on the side wall of the caravan below the housing 12. Alternatively, an overcentre type locking diagonal linkage, as illustrated at 23, may be provided between the roof member 16 and the wall member 13 to hold them in their operative positions relative to one another. The linkage assembly 23 may be moved inwardly beyond its overcentre position to enable the wall frame member 13 to be folded alongside the roof frame member 16.

Referring to FIG 2, it will be seen that each roof frame



member 16 includes a mounting portion 24 which is pivotally supported between the floor 25 of the housing 12 and an intermediate flange 26, and an outer section 29 which extends outwardly to connect pivotally to the wall frame member 13.

5 The outer section 29 is hingedly connected to the inner section 24 by the pin 28 such that the outer section 29 may be raised and lowered without placing a bending stress on the pivotal connection between the inner section 24 and the support housing 12 about which the frame members move between
10 stowed and operative attitudes.

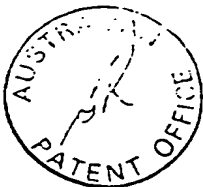
The upper part of the housing 12 above the flange 26 accommodates the spool 30 and the covering 11 when rolled thereabout while the lower portion of the housing beneath the intermediate flange 26 accommodates the folded roof and wall
15 inner sections. Suitable locking means may be provided for maintaining the folded frame members in their stowed attitude. Furthermore, the end portions of the housing 12 (not shown) may be provided with mounting means for a spring return spool or for connection of manual drive means for
20 rotating the spool 30 so as to retract the covering 11 to its stowed position. It is also preferred that the back wall of the housing 12 be provided with quick connection means such as key hole slots 31 for detachably securing the assembly 10 to a side wall of a caravan or an alternate location as desired.

25 In use, the annexe assembly 10 may be connected to a caravan wall as illustrated and maintained in the stowed



attitude while travelling or in a confined space. When the annexe is required, the frame members are unlocked and pivoted to extend outwardly from the housing 12. When they are pivoted to their extended positions the outer ends of the roof members can pivot downwardly about the pin 28 to rest on the ground whereby they may be elevated at will to enable the wall member 13 to fold down and be locked in place by either a diagonal brace assembly 23 or a floor strut 21. When the frame has been erected and braced by the diagonal roof braces 17, the fabric covering 11 may be withdrawn from the housing across the roof frames and down to the lower edge of the wall frames. the bar 14 is then attached to the lower ends of the wall frames 13 to complete the basic annexe structure.

It will be appreciated that the basic annexe structure which provides shade and shelter can be very quickly erected or folded to its stowed attitude and without the need to locate individual pieces and assemble same in a particular In the embodiment illustrated in FIGS 3 to 7, the covering 40 is supported about a spool 41 which may be freely rotated in the top housing 42 of a housing assembly 38. The spool ends 43 engage in diagonal slots 44 whereby during retraction of the fabric from the spool 41, the latter is supported by the front wall 45 and the base wall 46 of the housing 42. One end of the spool 41 is flexibly coupled to a gearbox (not shown) whereby it may be manually or motor-driven to reel the covering 40 therearound in order to retract the covering 40



into the housing 42. The covering 40 tapers towards its outer longitudinal edge 40a, as shown, whereby, when extended, its outer end portion does not fully cover the side wall which extends between the corner posts 51 and 52 of the annexe frame.

The covering 40 is provided with zippers 48 and 49 along the tapered transverse edges 40t so that end panels 50 can be zip connected thereto. Each end wall 50 extends about the respective corner post 51 or 52 to join to the side wall part 54 of the covering 40.

As illustrated in Fig 3, the annexe frame assembly 55 folds into a central guide recess 56 in the housing assembly 38. The frame assembly 55 includes a pair of centrally folding rafters 57 pivotally connected to the outer ends of the downwardly inclined recess 56 whereby they may retract into respective end portions thereof. Their outer ends 53 connect pivotally to an inwardly facing channel 59 in the closure rail 58 into which the rafters 57 may retract. The rail 58 is also provided with a downwardly facing channel 60 into which the corner posts 51 and 52 may be retracted for storage purposes. The closure rail 58 closes the recess 56 when in the stowed position. The housing assembly 38 also includes a separate lower housing 64 in which the rolled end panels 50 are stored when not in use.

A pair of retractable wire braces 61 and 62 are utilized to rigidify the erected frame. Furthermore, the folding



rafters 57 are formed with overcentre pivoting joints 63 arranged to lock in their extended attitude. These joints 63 may be pushed inwards to cause the rafters to fold for retraction in the housing 56.

5 This arrangement provides a simple erection procedure which is illustrated in FIG 7. Firstly, the frame assembly is pulled out from the housing 56 and the legs 51 and 52 are lowered to support the corner rail 58. The covering 40 is then pulled out from the housing 42 and its outer mounting
10 bar 66 is locked into position at the bottom of legs 51 and 52. The end panels 50 are then zipped to the covering 40 to complete the annexe. Tapered windows 67 and doors 68 are provided in the end panels 50 or the covering 40.

 Such an annexe will be particularly useful for
15 connection to a four wheel drive vehicle or the like as it will be light and be readily erected and stowed.

 It will of course be realised that the above has been given only by way of illustrative example of the present invention and that all such modifications and variations
20 thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of this invention as is defined in the appended Claims.

THE CLAIMS DEFINED IN THIS INVENTION ARE AS FOLLOWS:-

1. An annexe assembly including:- a support assembly attachable to a mounting; a retractable flexible covering within said support assembly whereby it may be selectively extended from or retracted into said support assembly; said covering being supported as a roll when in said retracted attitude and being tapered whereby transverse edge portions thereof do not roll upon themselves in said retracted attitude.
2. An annexe assembly according to claim 1 wherein there is further provided including:- an annexe frame pivotally attached to said support assembly whereby it may be selectively moved between a stowed attitude substantially within or adjacent said support assembly and an erected attitude for supporting the extended said flexible covering.
3. An annexe assembly according to claim 1 or claim 2, wherein said flexible covering is supported on a spool mounted within a housing in said support assembly.
4. An annexe assembly according to claim 3, wherein said annexe frame includes opposed transverse roof frame assemblies pivotally connected to said support assembly and a longitudinal roof frame assembly pivotally attached to said



transverse roof frame members whereby said roof frame assemblies may be stowed juxtapositioned in said support assembly.

5. An annexe assembly according to claim 4, wherein said roof frame assemblies support wall frame members adapted to support said longitudinal frame assembly in an elevated position.

6. An annexe assembly according to any one of the preceding claims, wherein said wall frame members are pivotally connected to outer end portions of said longitudinal roof frame member whereby they may pivot from a stowed attitude juxtapositioned said longitudinal roof frame member to a supporting attitude and said transverse roof frame members include inner and outer portions pivotally connected together and adapted to lie alongside one another in said stowed attitude.

7. An annexe assembly according to any one of the preceding claims, wherein said covering tapers outwardly from said support assembly.

8. An annexe assembly according to any one of the preceding claims, wherein said support assembly includes a spool housing for supporting said flexible covering; an



annexe frame housing for supporting said roof frame assemblies and an auxiliary housing for supporting stowed sidewall panels.

9. An annexe assembly substantially as hereinbefore described with reference to the accompanying drawings.

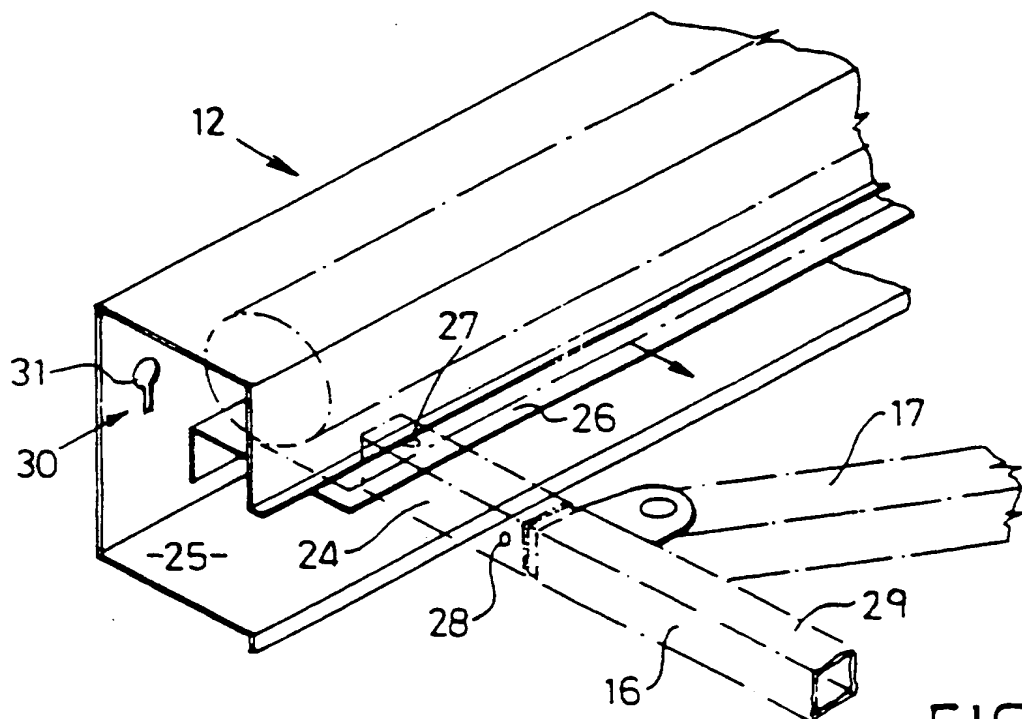
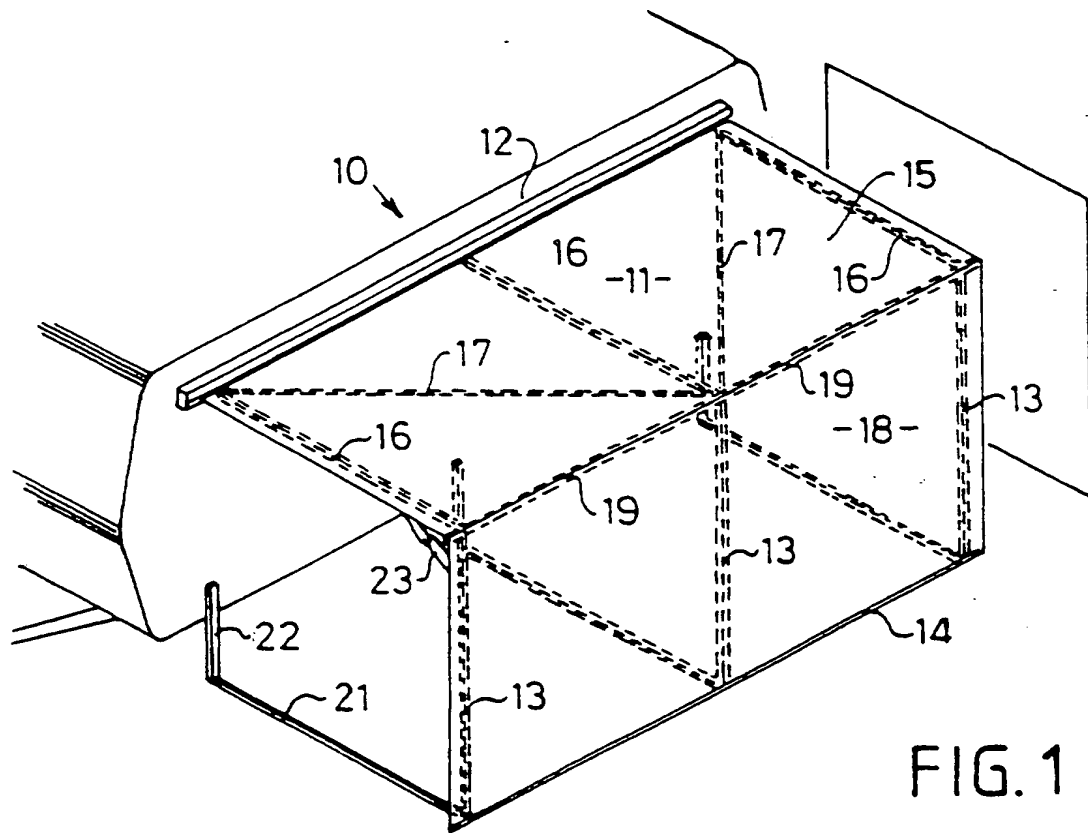
DATED THIS Twenty-sixth DAY OF February, 1990.

JUDE CHRISTOPHER KIRK and WILLIAM FREDERICK BRADNAM

by

PIZZEY & COMPANY PATENT ATTORNEYS





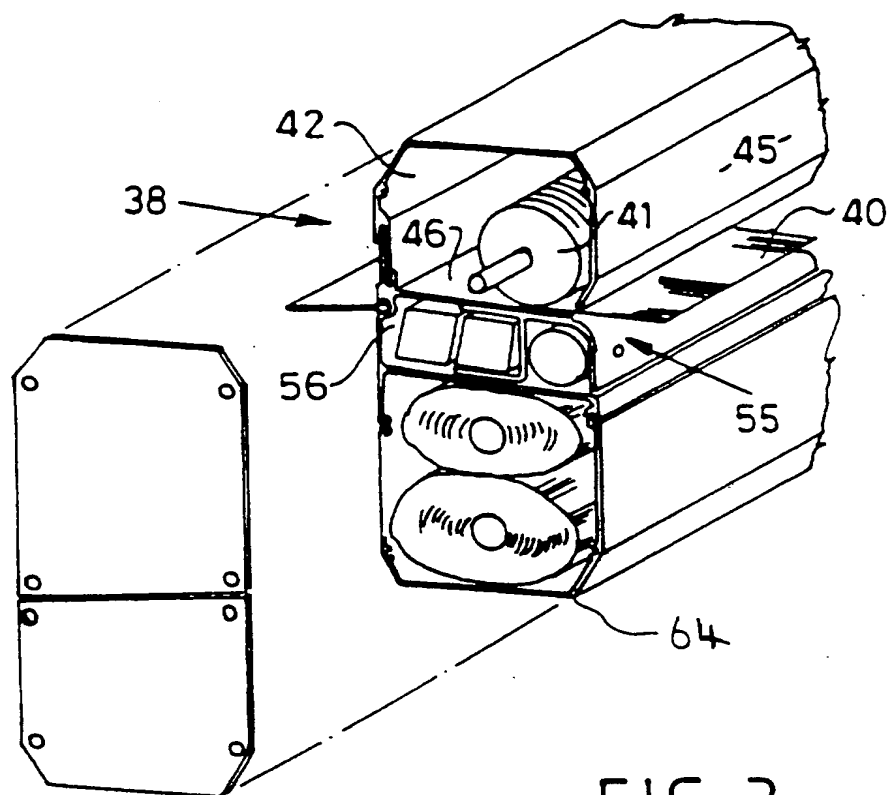


FIG. 3

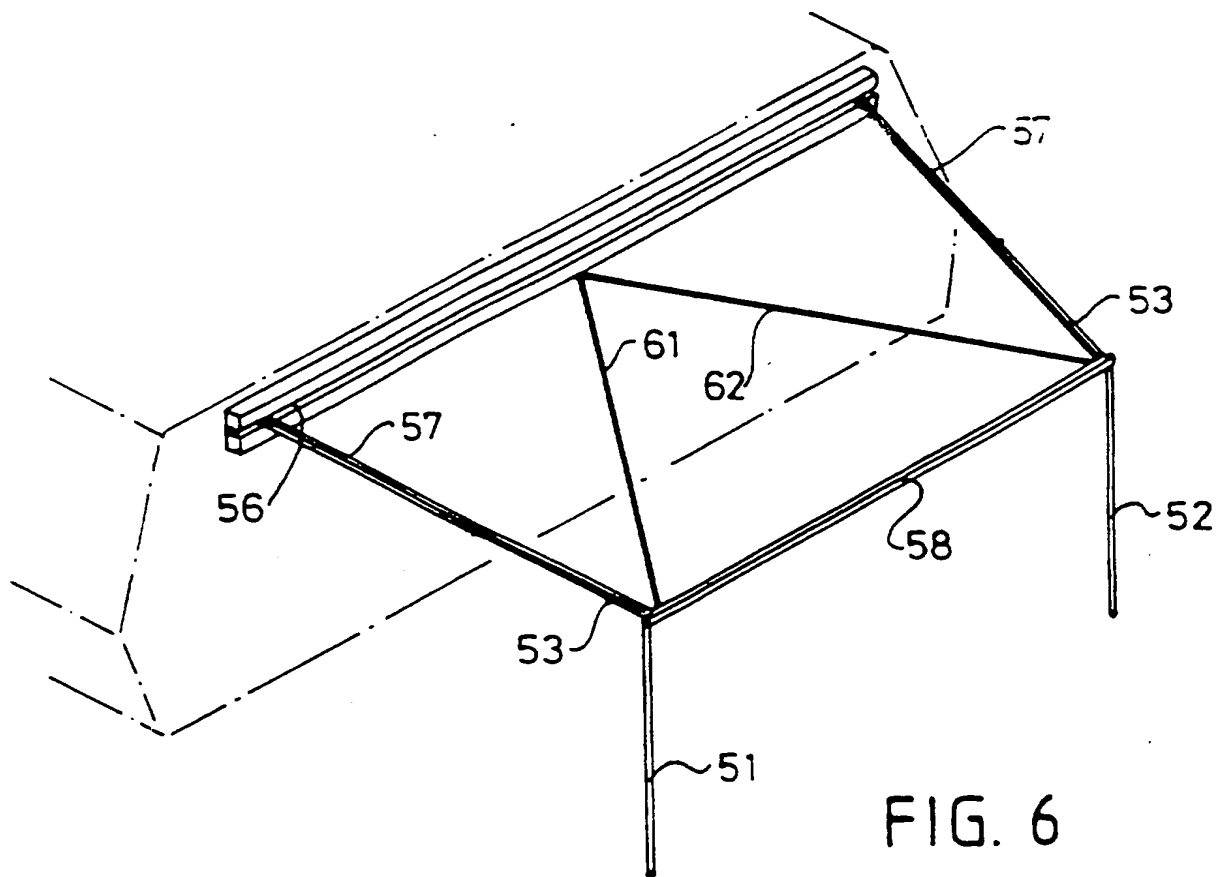


FIG. 6

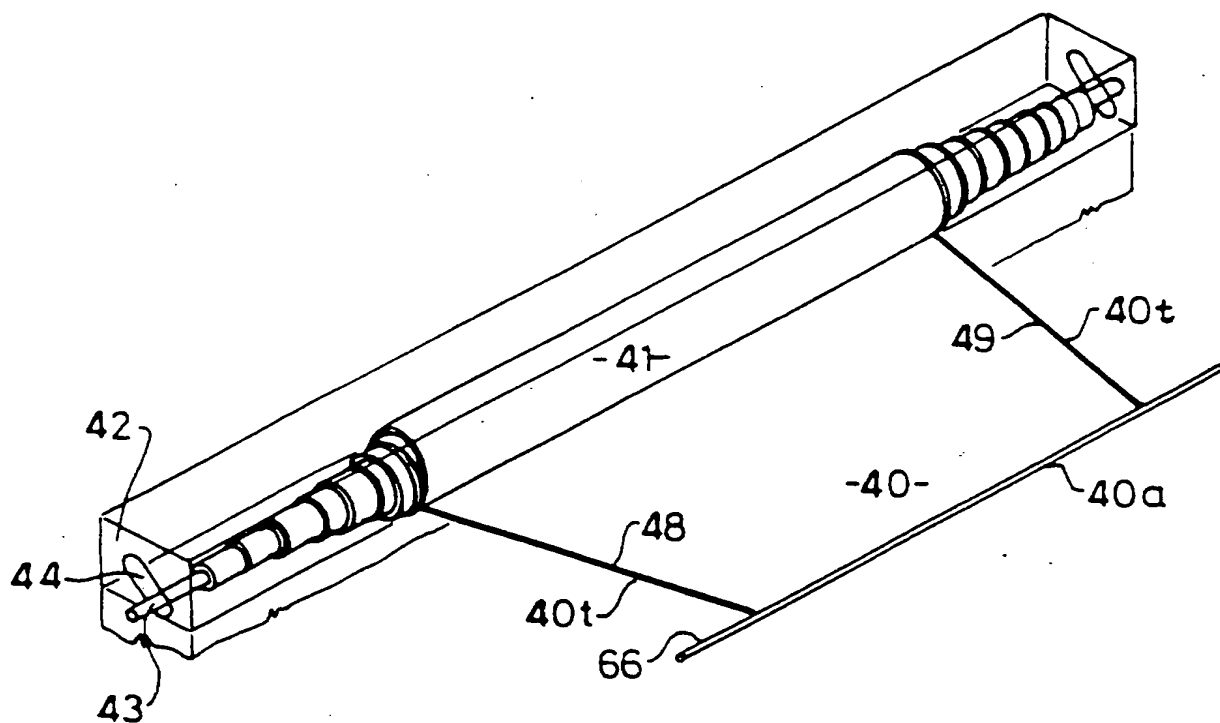


FIG. 4

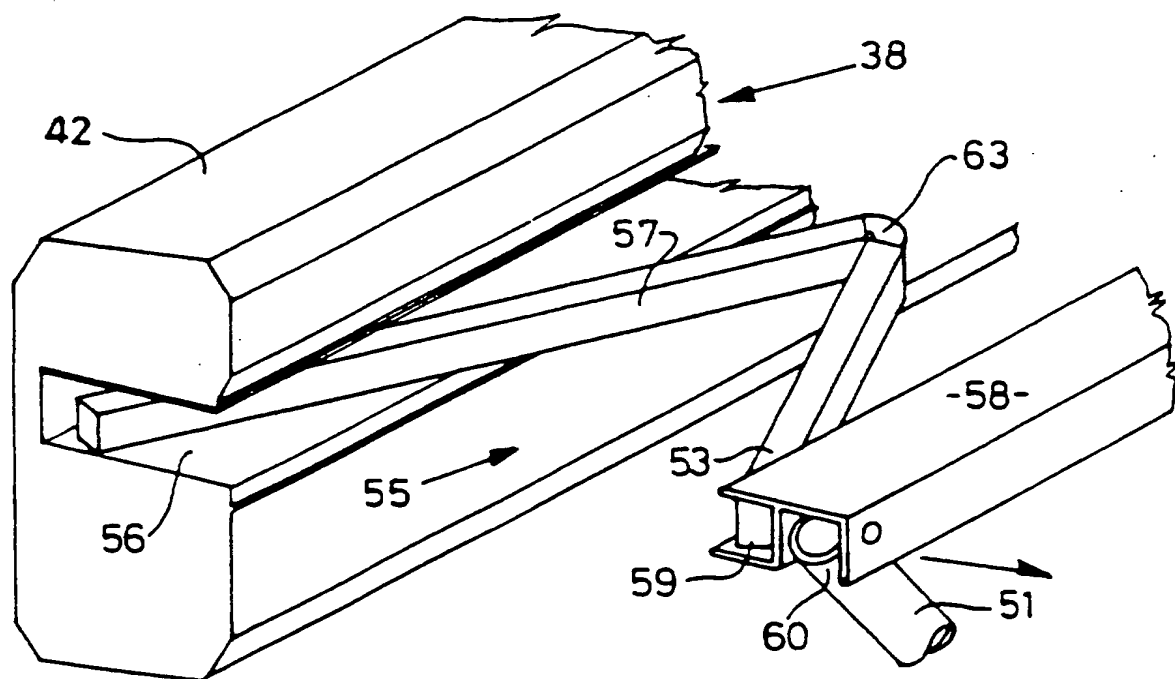


FIG. 5

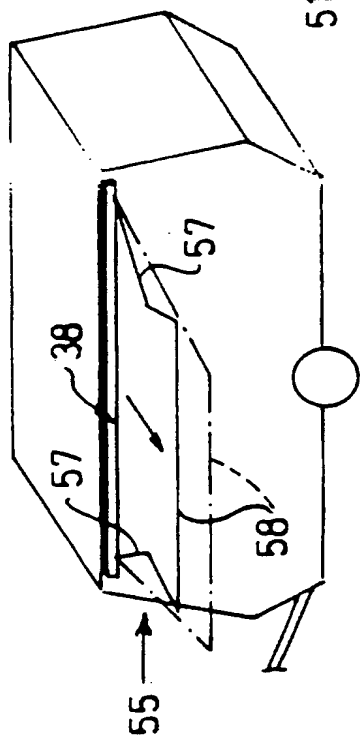


FIG. 7a

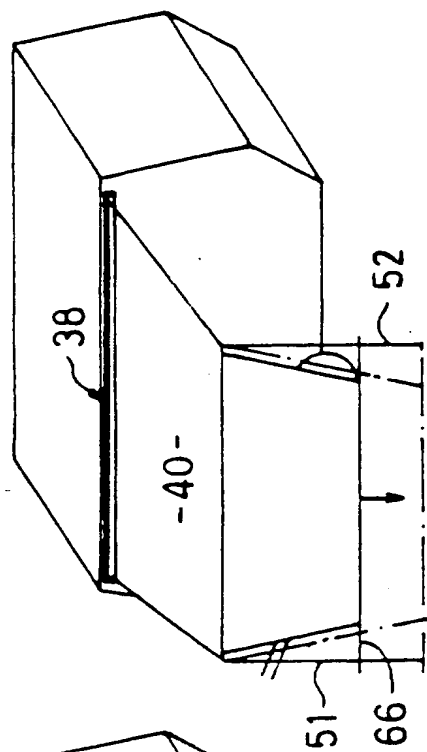


FIG. 7b

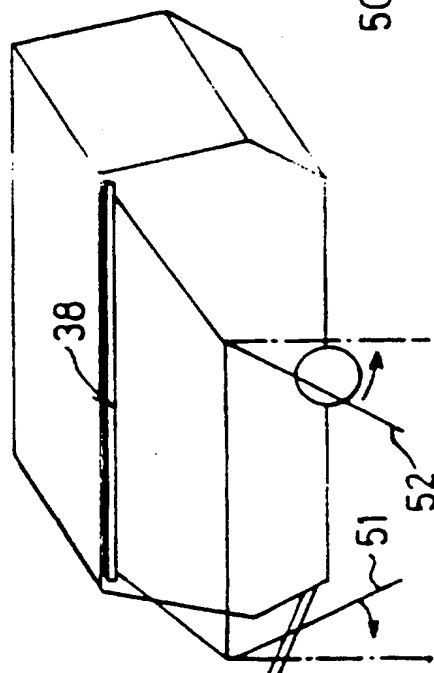


FIG. 7c

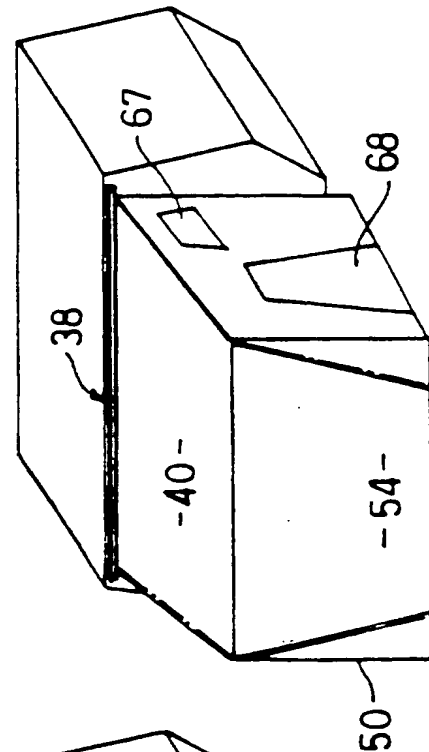


FIG. 7d

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